Aditya Jain

Computational Designer | Digital Design Specialist | Tutor
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Professional Summary

Computational Designer with 8+ years of experience developing design-to-fabrication workflows and computational systems for complex architectural projects. Specializes in translating design intent into scalable, production-ready geometry through automation, data modeling, and interoperability between design, engineering, and manufacturing environments. Experienced in deploying computational tools that improve delivery speed, reduce coordination risk, and enable large-scale customization in advanced fabrication contexts.

Professional Experience

Branch Technology — Digital Design Specialist / Computational Designer
Chattanooga, TN | Jan 2024 – Present

- Developed and deployed computational workflows translating manufacturing constraints into fabrication-ready geometry for large-scale 3D-printed façade systems.
- Implemented automated panel generation, validation, and documentation pipelines that enabled same-day releases, reducing manual modeling time by ~80%, improving reliability across design-to-production workflows.
- Built data-driven tools for BOM generation, geometric validation, and material optimization, improving reliability and consistency across fabrication workflows.
- Acted as a technical bridge between design, engineering, and manufacturing teams to align geometry, material behavior, and constructability across project phases.

HOK — Design Technology Intern
Kansas City, MO | May 2023 – Aug 2023

- Developed parametric models to evaluate design options against performance and project constraints during design phases.

NUDES — Associate Architect / Computational Designer
Mumbai, India | Jun 2018 – Apr 2022

- Developed parametric systems to rationalize complex geometry for fabrication and construction across **8 built projects** and **2 award-winning competition proposals**.

Education

Georgia Institute of Technology — MS Architecture, Design Computation
Atlanta, GA | 2022 – 2023

KRVIA, Mumbai University — Bachelor of Architecture
Mumbai, India | 2013 – 2018

Technical Skills

Computational Design & Geometry:
Advanced Grasshopper, parametric modeling, custom component and plugin development, design automation, geometry rationalization, data management, algorithmic workflows.

Programming & Automation:
C#, Python, Typescript, object-oriented scripting, data extraction and validation, Git-based version control (GitHub).

Interoperability & BIM Integration:
Rhino.Inside workflows, BIM360 coordination, model interoperability, geometry validation, fabrication documentation.

Digital Fabrication & Production Workflows:
Design-to-fabrication pipelines, CNC workflows, robotic toolpaths, panelization systems, automated shop drawings, tolerance-aware modeling for manufacturing.